

# Main Patents

## ■ Patents registered in 2014

| Registration Number  | Name  | Inventor(s)   |
|----------------------|---|---|
| Japan Patent 5501015 | Electric Fan  | Naruhiko Kudou, Tomoaki Ikeda, Haruhisa Maruyama  |
| Japan Patent 5525408 | Electric Machine Apparatus  | Satoshi Sugita, Yasushi Misawa, Yu Qi Tang  |
| Japan Patent 5525429 | Counter-Rotating Axial-Flow Fan   | Honami Osawa, Yoshihiko Aizawa, Co-invented with the University of Tokyo, FUJITSU Japan |
| Japan Patent 5528421 | Motor Control Device  | Yuji Ide, Masakazu Sakai  |
| Japan Patent 5558182 | Heat-Dissipation Structure for Electric Apparatus                                   | Toshihito Miyashita, Hiroshi Hioki, Masakazu Chikyu                                     |
| Japan Patent 5574628 | Centrifugal Fan   | Kevin Yen, Hiromitsu Kuribayashi  |
| Japan Patent 5574762 | Motor Control Device  | Yuji Ide  |
| Japan Patent 5587258 | Work Guidance System  | Norio Nakamura, Shigejiro Miyata  |
| Japan Patent 5605997 | Stator for Rotation Electrical Machine  | Masaaki Ohashi, Youichi Horiuchi, Yasushi Yoda, Kouji Nakatake                          |
| Japan Patent 5606049 | Linear Synchronous Motor  | Yu Qi Tang, Takashi Matsushita, Satoshi Sugita  |
| Japan Patent 5606387 | Motor Control System Including Electrical Insulation Deterioration Detecting System | Yuji Ide  |
| Japan Patent 5612158 | Master-Slave Communication System and Communication Method Thereof                  | Makoto Kitazawa, Narumi Yanagisawa  |
| Japan Patent 5620526 | Motor Control Device  | Yuji Ide, Satoshi Yamazaki  |
| Japan Patent 5620527 | Motor Control Device  | Yuji Ide, Satoshi Yamazaki  |
| Japan Patent 5623757 | Motor Control Method and Motor Control System                                       | Yuji Ide  |
| Japan Patent 5629467 | Linear Synchronous Motor  | Yu Qi Tang, Satoshi Sugita  |
| Japan Patent 5629505 | Centrifugal Fan   | Kevin Yen, Jirou Watanabe, Hiromitsu Kuribayashi, Shigekazu Mitomo                      |
| Japan Patent 5634782 | Centrifugal Fan   | Kevin Yen, Hiromitsu Kuribayashi  |
| Japan Patent 5652975 | Motor Control Device  | Yuji Ide, Masahisa Koyama, Satoshi Yamazaki   |
| Japan Patent 5652977 | Motor Control Device  | Yuji Ide, Satoshi Yamazaki, Michio Kitahara   |
| Japan Patent 5656671 | Motor Condition Inspection Method and Motor Characteristic Inspecting Device        | Akihiko Takahashi   |
| Japan Patent 5658785 | Motor Control System  | Yuji Ide, Shunichi Miyazaki   |
| Japan Patent 5671379 | Mobile Power Supply Vehicle   | Nobuya Ootsuki, Mamoru Tomioka  |
| Japan Patent 5695711 | Rotary Type Motor   | Satoshi Sugita, Yasushi Misawa, Yu Qi Tang, Shigenori Miyairi                           |
| EP Patent 2284498    | OPTICAL ENCODER DEVICE  | Yoshihiro Shoji   |
| EP Patent 2362287    | MOTOR CONTROL METHOD AND MOTOR CONTROL SYSTEM                                       | Yuji Ide  |
| U.S. Patent 8680800  | DRIVING SYSTEM FOR FAN AND METHOD OF DRIVING FAN                                    | Shigekazu Mitomo, Kevin Yen   |
| U.S. Patent 8690528  | COUNTER-ROTATING AXIAL FLOW FAN   | Honami Osawa, Yoshihiko Aizawa, Co-invented with the University of Tokyo, FUJITSU Japan |
| U.S. Patent 8692428  | LINEAR ACTUATOR   | Shigenori Miyairi, Kouji Nakatake   |
| U.S. Patent 8753076  | CENTRIFUGAL FAN   | Kevin Yen, Hiromitsu Kuribayashi  |
| U.S. Patent 8764375  | COUNTER-ROTATING AXIAL FLOW FAN   | Honami Osawa, Yoshihiko Aizawa, Co-invented with the University of Tokyo, FUJITSU Japan |
| U.S. Patent 8764418  | CENTRIFUGAL FAN   | Kevin Yen, Hiromitsu Kuribayashi  |
| U.S. Patent 8770052  | LINEAR ACTUATOR   | Kouji Nakatake, Kazuyuki Kitazawa, Shigenori Miyairi                                    |
| U.S. Patent 8770943  | AXIAL FLOW FAN  | Katsumichi Ishihara   |

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|---------------------------------|--|---|
| U.S. Patent 8807919             | COUNTER-ROTATING AXIAL FLOW FAN  | Honami Osawa, Yoshihiko Aizawa, Co-invented with the University of Tokyo, FUJITSU Japan |
| U.S. Patent 8847525             | MOTOR CONTROL DEVICE AND CONTROL METHOD OF THE SAME                                    | Noriaki Taniguchi, Takahisa Toda, You Muramatsu   |
| U.S. Patent 8860279             | Generator Core   | Toshihito Miyashita   |
| U.S. Patent 8878125             | ENCODER WITH GEAR MECHANISM AND OPTICAL ENCODER DEVICE                                 | Toru Miyajima, Toshiaki Ayuzawa, Yoshihiro Shoji  |
| U.S. Patent 8896190             | ELECTRIC APPARATUS WITH STATOR CORE  | Akio Miyahara, Masaaki Ohashi, Kou Chou   |
| U.S. Patent 8896821             | ENCODER  | Tooru Miyajima, Yoshi Ishizuka, Shouji Ito  |
| U.S. Patent 8917087             | MOVING MAGNETIC FIELD GENERATING APPARATUS   | Satoshi Sugita, Yasushi Misawa, Yu Qi Tang, Shigenori Miyairi                           |
| U.S. Patent 8918301             | MOTOR CONDITION INSPECTION METHOD AND MOTOR CHARACTERISTIC INSPECTING DEVICE           | Akihiko Takahashi   |
| U.S. Patent 8928313             | MAGNETIC ENCODER WITH IMPROVED RESOLUTION  | Satoshi Sugita, Yu Qi Tang, Yasushi Misawa  |
| Canada Patent 2668092           | COUNTER-ROTATING AXIAL-FLOW FAN  | Jiro Watanabe, Toshiya Nishizawa, Yasuhiro Maruyama                                     |
| Philippine Patent 1-2008-000014 | AXIAL-FLOW FAN   | Toshiyuki Nakamura, Shigekazu Mitomo, Atsushi Yanagisawa                                |
| Philippine Patent 1-2009-500830 | COUNTER-ROTATING AXIAL-FLOW FAN  | Jiro Watanabe, Toshiya Nishizawa, Yasuhiro Maruyama                                     |
| Philippine Patent 1-2010-000057 | CENTRIFUGAL FAN  | Kevin Yen, Hiromitsu Kuribayashi  |
| Philippine Patent 1-2010-000066 | ELECTRICAL APPARATUS   | Haruhisa Maruyama, Tomoaki Ikeda, Takahisa Toda   |
| Philippine Patent 1-2010-500965 | METHOD OF CONTROLLING COUNTER-ROTATING AXIAL-FLOW FAN                                  | Honami Osawa, Naruhiko Kudou, Yoshihiko Aizawa  |
| Philippine Patent 1-2010-502952 | AXIAL FLOW FAN   | Toshiyuki Nakamura, Masahiro Koike, Naoya Inada   |
| Korea Patent 10-1290563         | MOTOR CONTROL DEVICE   | Yuji Ide, Michio Kitahara   |
| Korea Patent 10-1378050         | CONTROL SYSTEM FOR SYNCHRONOUS ELECTRIC MOTOR  | Yuji Ide  |
| Korea Patent 10-1406832         | LINEAR MOTOR   | Yu Qi Tang, Satoshi Sugita  |
| Korea Patent 10-1436452         | STATOR FOR MOTOR   | Toshihito Miyashita, Hiroshi Hioki  |
| Korea Patent 10-1481472         | OPTICAL ENCODER DEVICE THAT INCLUDES A MOVEABLE SLIT PLATE AND A STATIONARY SLIT PLATE | Yoshihiro Shoji, Yoshi Ishizuka, Shoji Ito  |
| Korea Patent 10-1481473         | MOTOR CONTROL SYSTEM INCLUDING ELECTRICAL INSULATION DETERIORATION DETECTING SYSTEM    | Yuji Ide  |
| Taiwan Patent I429826           | COUNTER-ROTATING AXIAL-FLOW FAN  | Toshiya Nishizawa, Yasuhiro Maruyama, Hayato Murayama                                   |
| Taiwan Patent I435003           | METHOD OF CONTROLLING COUNTER-ROTATING AXIAL-FLOW FAN                                  | Honami Osawa, Naruhiko Kudou, Yoshihiko Aizawa  |
| Taiwan Patent I455451           | LINEAR SYNCHRONOUS MOTOR   | Yu Qi Tang, Satoshi Sugita  |
| Taiwan Patent I459684           | LINEAR MOTOR   | Satoshi Sugita, Yasushi Misawa, Yu Qi Tang  |
| Taiwan Patent I460353           | COUNTER-ROTATING AXIAL-FLOW FAN  | Toshiya Nishizawa, Yasuhiro Maruyama, Hayato Murayama                                   |
| Taiwan Patent I462436           | BRUSHLESS MOTOR STATOR   | Izumi Onozawa, Masashi Miyazawa   |
| China Patent ZL200610160492.6   | AXIAL-FLOW FAN   | Masashi Miyazawa, Toshiki Ogawara, Tomoaki Ikeda  |
| China Patent ZL201010002029.5   | LINEAR MOTOR   | Satoshi Sugita, Yasushi Misawa, Yu Qi Tang  |
| China Patent ZL201010116854.8   | SMALL-SIZED MOTOR  | Daigo Kuraishi, Akira Shimizu   |
| China Patent ZL201010117430.3   | CENTRIFUGAL FAN  | Kevin Yen, Hiromitsu Kuribayashi  |

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| China Patent<br>ZL201010127668.4 | Sensor-Free AC Motor Control System   | Yuji Ide, Satoshi Yamazaki  |
| China Patent<br>ZL201010136292.3 | Controller for Three-Phase Synchronous Electric Motor with Faulty Wiring Detecting Function | Yuji Ide  |
| China Patent<br>ZL201010190514.X | HEAT RADIATION STRUCTURE OF ELECTRIC APPARATUS  | Toshihito Miyashita, Hiroshi Hioki, Masakazu Chikyu   |
| China Patent<br>ZL201010190555.9 | STATOR FOR ROTARY ELECTRIC MACHINE  | Masaaki Ohashi, Youichi Horiuchi, Yasushi Yoda, Kouji Nakatake  |
| China Patent<br>ZL201010202787.1 | CENTRIFUGAL FAN   | Kevin Yen, Hiromitsu Kuribayashi  |
| China Patent<br>ZL201010239619.X | METHOD OF INSPECTING MOTOR CONDITION AND DEVICE FOR INSPECTING MOTOR CHARACTERISTICS        | Akihiko Takahashi   |
| China Patent<br>ZL201010241817.X | OPTICAL ENCODER DEVICE  | Yoshihiro Shoji   |
| China Patent<br>ZL201010241849.X | Utility-Connected Inverter Unit and Control Method Thereof                                  | Minoru Yanagisawa, Takashi Kobayashi  |
| China Patent<br>ZL201010251046.2 | CENTRIFUGAL FAN   | Kevin Yen, Hiromitsu Kuribayashi  |
| China Patent<br>ZL201010531514.1 | POWER SUPPLY SYSTEM FOR DRIVING MOTOR   | Yuji Ide  |
| China Patent<br>ZL201010535736.0 | POWER SUPPLY SYSTEM FOR DRIVING MOTOR AND REGENERATION METHOD USING THE SAME                | Yuji Ide  |
| China Patent<br>ZL201010557782.0 | MAGNETIC ABSOLUTE ENCODER   | Shigeharu Katou, Kazuhiro Makiuchi, Shoji Itou, Tooru Miyajima, Tomohito Yamazaki, Masato Matsuda, Toshiaki Ayuzawa |
| China Patent<br>ZL201010588889.1 | LINEAR ACTUATOR   | Shigenori Miyairi, Kouji Nakatake   |
| China Patent<br>ZL201010588897.6 | LINEAR ACTUATOR   | Kouji Nakatake, Kazuyuki Kitazawa, Shigenori Miyairi  |
| China Patent<br>ZL201010589437.5 | COUNTER-ROTATING AXIAL FLOW FAN   | Honami Osawa, Yoshihiko Aizawa, Co-invented with the University of Tokyo, FUJITSU Japan                             |
| China Patent<br>ZL201010589452.X | COUNTER-ROTATING AXIAL FLOW FAN   | Honami Osawa, Yoshihiko Aizawa, Co-invented with the University of Tokyo, FUJITSU Japan                             |
| China Patent<br>ZL201010589455.3 | COUNTER-ROTATING AXIAL FLOW FAN   | Honami Osawa, Yoshihiko Aizawa, Co-invented with the University of Tokyo, FUJITSU Japan                             |
| China Patent<br>ZL201010606102.X | LINEAR SYNCHRONOUS MOTOR  | Yu Qi Tang, Satoshi Sugita  |
| China Patent<br>ZL201110030378.2 | METHOD OF CONTROLLING MOTOR AND CONTROLLING SYSTEM  | Yuji Ide, Michio Kitahara   |
| China Patent<br>ZL201110035030.2 | LINEAR SYNCHRONOUS MOTOR  | Yu Qi Tang, Satoshi Sugita  |
| China Patent<br>ZL201110047070.9 | CONNECTING STRUCTURE FOR ELECTRIC CABLES AND ELECTRIC APPARATUS                             | Toshihito Miyashita, Hiroshi Hioki, Masakazu Chikyu   |
| China Patent<br>ZL201110048592.0 | MOTOR CONTROL METHOD AND MOTOR CONTROL SYSTEM   | Yuji Ide  |
| China Patent<br>ZL201110102540.7 | FAN WITH REDUCED NOISE  | Naoya Inada, Toshiyuki Nakamura, Toshiki Ogawara, Yoshinori Miyabara  |